

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

In re Application of
JOZEF PIETER VAN GASSEL

Atty. Docket
NL 031339

Confirmation No. 7897

Serial No. 10/579,419

Group Art Unit: 2627

Filed: MAY 15, 2006

Examiner: PENDLETON, D.

Title: DETERMINING BUFFER REFILLING TIME WHEN PLAYING BACK
VARIABLE BIT RATE MEDIA STREAMS

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APPEAL BRIEF

Sir:

Appellant herewith respectfully presents a Brief on Appeal as follows, where a Notice of Appeal is concurrently filed:

REAL PARTY IN INTEREST

The real party in interest in this appeal is the assignee of record Koninklijke Philips Electronics N.V., a corporation of The Netherlands having an office and a place of business at Groenewoudseweg 1, Eindhoven, Netherlands 5621 BA.

RELATED APPEALS AND INTERFERENCES

Appellant and the undersigned attorney are not aware of any other appeals or interferences which will directly affect or be directly affected by or having a bearing on the Board's decision in the pending appeal.

STATUS OF CLAIMS

Claims 1-2, 6, 8-10 and 12-19 are pending in this application where claims 3-5, 7 and 11 are canceled. Claims 1-2, 6, 8-10 and 12-19 are rejected in the Final Office Action mailed on December 29, 2009. Claims 1-2, 6, 8-10 and 12-19 are the subject of this appeal.

STATUS OF AMENDMENTS

Appellant did not previously file a Response to a Final Office Action mailed on December 29, 2009. Appellant is concurrently filing a Response to the Final Office Action mailed December 29, 2009 where claim 10 is canceled without prejudice, entry of which is respectfully requested. This Appeal Brief is in response to the Final Office Action mailed on December 29, 2009, that finally rejected claims 1-2, 6, 8-10 and 12-19.

SUMMARY OF THE CLAIMED SUBJECT MATTER

The present invention, for example, as recited in independent claim 1, shown in FIG 1, and described on page 2, line 28 to page 3, line 26; and page 5, line 12 to page 6, line 20 of the specification, is directed to a playback device 8 for playback of a media stream from a storage medium 1. As shown in FIG 1, and described on page 5, lines 12-23, the playback device 8 comprises reading means, such as a disk head 2, for reading at least a part of the media stream, a buffer 4 for holding the part of the media stream, a playback unit 5 for consuming the part of the media stream from the buffer at a predefined rate, and control means such as a control unit 6 for controlling the reading of the media stream from the storage medium 1, filling of the buffer 4 during a buffer filling period, and the playback of the media stream. As described on page 3, lines 20-23, the control means or control unit 6 comprise means, such as a retrieval unit 9, for retrieving playback mode control information stored on the storage medium 1 and means, such as a calculation unit 10, for calculating a buffer refilling time depending on the playback mode control information. As described on page 4, lines 13-16 and page 7, lines 5-14 of the

specification, the control means or control unit 6 is arranged for calculating the buffer filling period depending on information about the location of the part of the media stream on the storage medium 1.

The present invention, for example, as recited in claim 6, shown in FIG 1, and described on page 4, lines 24-26 and page 7, lines 5-14 of the specification, is directed to a playback device 8 where the control means or control unit 6 is arranged for calculating the buffer filling period of the buffer 4 depending on information about the position of the disk head 2.

The present invention, for example, as recited in independent claim 8, shown in FIG 1, and described on page 2, line 28 to page 3, line 26; and page 5, line 12 to page 6, line 20 of the specification, is directed to a method for playback of a media stream from a storage medium 1 by a device 8, the method comprising reading at least a part of the media stream; holding the part of the media stream in a buffer 4; playing back the part of the media

stream from the buffer 4 at a predefined rate; controlling the reading of the media stream from the storage medium 1; and filling of the buffer 4 during a buffer filling period. As described on page 3, lines 20-23; page 4, lines 13-16 and page 7, lines 5-14 of the specification, the controlling act comprises the sub acts of retrieving playback mode control information stored on the storage medium 1; calculating the buffer refilling time depending on the playback mode control information; and calculating the buffer filling period depending on information about the location of the part of the media stream on the storage medium 1.

The present invention, for example, as recited in claim 9, shown in FIG 1, and described on page 4, lines 24-26 and page 7, lines 5-14 of the specification, is directed to a method further comprising calculating the buffer filling period depending on information about the position of the disk head 2 of the device 8.

GROUND OF REJECTION TO BE REVIEWED ON APPEAL

Whether claims 1-2, 6 and 8-10 of U.S. Patent Application Serial No. 10/579,419 are unpatentable under 35 U.S.C. §103(a) over U.S. Patent No. 6,865,627 (Wu'627) in view of U.S. Patent No. 6,535,470 (Wu'470) and U.S. Patent No. 7,373,413 (Nguyen).

Whether claims 12-19 of U.S. Patent Application Serial No. 10/579,419 is unpatentable under 35 U.S.C. §103(a) over Wu'627, Wu'470, and Nguyen and further in view of U.S. Patent No. 7,194,191 (Tada).

Whether claim 10 of U.S. Patent Application Serial No. 10/579,419 is unpatentable under 35 U.S.C. §101 for being directed to non-statutory subject matter.

ARGUMENT

Claims 1-2, 6 and 8-10 are said to be unpatentable under 35 U.S.C. §103(a) over Wu'627, in view of Wu'470, and Nguyen.

Appellant respectfully requests the Board to address the patentability of independent claims 1 and 8 as well as dependent claims 6 and 9, and further claims 2, 8, 10 and 12-19 as depending from claims 1 and 8, based on the requirements of independent claims 1 and 8. This position is provided for the specific and stated purpose of simplifying the current issues on appeal. However, Appellant herein specifically reserves the right to argue and address the patentability of claims 2, 8, 10 and 12-19 at a later date should the separately patentable subject matter of claims 2, 8, 10 and 12-19 later become an issue. Accordingly, this limitation of the subject matter presented for appeal herein, specifically limited to discussions of the patentability of claims 1 and 8, and dependent claims 6 and 9, is not intended as a waiver of Appellant's right to argue the patentability of the further claims and claim elements at that later time.

Wu'627 is directed to a regulating real-time data capture rates to match processor-bound data consumption rates. As

described on column 7, lines 26-54, various calculations are performed, such as calculating the amount of time to transition from play-mode to stop-mode.

Wu'470 is directed to a method and apparatus for writing data in a disk drive. A velocity detector determines a velocity of a rotating disk as a detected velocity. A control circuit retrieves write signal control values based on the detected velocity and selected predefined velocities of the sets of write signal control values. (See Abstract)

As correctly noted on page 3, last full paragraph of the Final Office Action, Wu'627 and Wu'470 do not disclose or suggest any control means arranged for calculating the buffer filling period depending on information about a location of the part of the media stream on the storage medium, as recited in independent claims 1 and 8. Nguyen is cited in an attempt to remedy the deficiencies in Wu'627 and Wu'470.

Nguyen is directed to devices and methods for minimizing start up delay in transmission of streaming media. Column 3, lines 26-34; lines 37-39; and lines 41-55 of Nguyen are cited to allegedly show the above noted feature of independent claims 1 and 8.

Column 3, lines 25-34 of Nguyen specifically recite the

following:

The streaming media may have a constant or a variable transmission rate.

The server 310 also includes a burst path 322. The burst path 322 is for transmitting data received from the source at a burst rate. The burst rate is higher than the regular rate.

The server 310 most preferably includes an initial burst transmit buffer 324 in the burst path 322. The initial burst transmit buffer 324 is for buffering the data received from the source, above and beyond the operations of transmit buffer 314. The initial burst transmit buffer 324 is also for transmitting the buffer to data through the network 150 to the client 360 at the burst rate. (Emphasis added)

Column 3, lines 36-39 of Nguyen specifically recite the following:

The server 310 also includes a switch 330. The switch 330 is for selecting to transmit data to the network 150 from either the regular path 312, or the burst path 322. (Emphasis added)

Column 3, lines 41-55 of Nguyen specifically recite the following:

The server 310 preferably also comprises a control unit 335. The control unit 335 is primarily for controlling the switch 330. The control unit 335 can be implemented as a processor, software in a processor, a separate circuit, etc.

The server 310 preferably also includes a monitor that measures an amount of the data that is output through the burst path 322. That measure is most conveniently a number of frames, the same number as are stored in initial burst transmit buffer 324. This

monitor can be implemented in connection with the initial burst transmit buffer 324, such as by software. Alternately, this monitor can be implemented in connection with the control unit 335. Column 3, line 53 The control unit 335 switches the switch 330, when a preset measure of the data is output through the burst path 322. (Emphasis added)

A careful reading of the above cited portions of Nguyen reveals that these portions have nothing to do, and do not disclose or suggest any controller to calculate buffer filling period, let alone doing so depending on information about the location of the part of the media stream on the storage medium, as recited in independent claims 1 and 8. Rather, the noted portions of Nguyen merely disclose that an initial or burst rate is higher than the regular rate. The initial burst rate is related to initial startup of transmission. That is, the initial burst rate is related to WHEN transmission begins, and has nothing to do with the location of a part of the media stream on the storage medium.

It is respectfully submitted that Wu'627, Wu'470, Nguyen, and combination thereof, do not disclose or suggest the present invention as recited in independent claim 1, and similarly recited in independent claim 8 which, amongst other patentable elements, requires (illustrative emphasis provided):

wherein the control means are arranged for

calculating the buffer filling period depending on information about a location of the part of the media stream on the storage medium.

Calculating the buffer filling period depending on information about the location of the part of the media stream on the storage medium is nowhere disclosed or suggested in Wu'627, Wu'470 and Nguyen, alone or in combination. At best, the combination of Wu'627, Wu'470 and Nguyen discloses matching bound data capture and consumption rates by calculating the amount of time to transition from play-mode to stop-mode, as disclosed in Wu'627, retrieving write signal control values based on the velocity of a rotating disk, as disclosed in Wu'470, and using a higher initial burst rate is higher than the regular rate to minimize the startup delay of streaming media, as disclosed in Nguyen.

Accordingly, it is respectfully submitted that independent claims 1 and 16 are allowable, and allowance thereof is respectfully requested. In addition, it is respectfully submitted that claims 2-5, 8-10, 12-15 and 17-21 are also allowable at least based on their dependence from amended independent claims 1 and 16.

In addition, Wu'627, Wu'470, Nguyen, and combination thereof, do not disclose or suggest "wherein the control means are arranged

for calculating the buffer filling period depending on information about a position of a disk head," as recited in claim 6, and similarly recited in claim 9. (Illustrative emphasis provided) In fact, in the paragraph spanning pages 4-5 of the Final Office Action, the Examiner correctly notes that Nguyen "fails to specifically teach that the controls means are arranged for calculating the buffer filling period depending on information about the location of a disk head." (Final Office Action, page 4, last paragraph, lines 1-3) Column 3, lines 26-34 of Nguyen is cited to allegedly show this feature. As noted above, where column 3, lines 26-34 of Nguyen is reproduced, this portion of Nguyen merely discloses to use a higher rate at initial startup to minimize the startup delay of streaming media. Thus, the higher initial rate is based on an initial startup, and not based on any position of the disk head. Accordingly, claims 6 and 9 are allowable over Wu'627, Wu'470 and Nguyen.

Claims 12-19 are said to be unpatentable under 35 U.S.C. §103(a) over Wu'627, Wu'470, and Nguyen and further in view of Tada.

It is respectfully submitted that claims 12-19 should be

allowed at least based on their dependence from independent claim 1 and 8.

Claim 10 is said to be unpatentable under 35 U.S.C. §101 for being directed to non-statutory subject matter.

It is respectfully submitted that claim 10 is a dependent claim, and not an independent claim, and thus should be allowed at least based on its dependence from independent claim 8. Further, to advance prosecution, it should be noted that a Response to the Final Office Action mailed on December 29, 2009 is concurrently filed, where claim 10 is canceled without prejudice, entry of which is respectfully requested.


In addition, Appellant denies any statement, position or averment of the Examiner that is not specifically addressed by the foregoing argument and response. Any rejections and/or points of argument not addressed would appear to be moot in view of the presented remarks. However, Appellant reserves the right to submit further arguments in support of the above stated position, should that become necessary. No arguments are waived and none of the Examiner's statements are conceded.

CONCLUSION

Claims 1-2, 6, 8-10 and 12-19 are patentable over Wu'627, Wu'470, Nguyen and Tada.

Thus, the Examiner's rejections of claims 1-2, 6, 8-10 and 12-19 should be reversed.

Respectfully submitted,

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CLAIMS APPENDIX

1. (Previously Presented) A playback device for playback of a media stream from a storage medium, the device comprising reading means for reading at least a part of the media stream, a buffer for holding the part of the media stream, a playback unit for consuming the part of the media stream from the buffer at a predefined rate, and control means for controlling the reading of the media stream from the storage medium, filling of the buffer during a buffer filling period, and the playback of the media stream, wherein the control means comprise means for retrieving playback mode control information stored on the storage medium, and means for calculating a buffer refilling time depending on the playback mode control information, wherein the control means are arranged for calculating the buffer filling period depending on information about a location of the part of the media stream on the storage medium.

2. (Previously Presented) The playback device as claimed in claim 1, wherein the means for retrieving playback mode control information are arranged for retrieving characteristic point

information and the means for calculating the buffer refilling time are arranged for calculating the buffer refilling time depending on the characteristic point information.

Claims 3-5 (Canceled)

6. (Previously Presented) The playback device as claimed in claim 1, wherein the control means are arranged for calculating the buffer filling period depending on information about a position of a disk head.

Claim 7 (Canceled)

8. (Previously Presented) A method for playback of a media stream from a storage medium by a device, the method comprising the acts of:

- reading at least a part of the media stream;
- holding the part of the media stream in a buffer;
- playing back the part of the media stream from the buffer at a predefined rate;
- controlling the reading of the media stream from the storage

medium; and

filling of the buffer during a buffer filling period;

wherein the controlling act comprises the sub acts of:

retrieving playback mode control information stored on the
storage medium;

calculating the buffer refilling time depending on the
playback mode control information; and

calculating the buffer filling period depending on information
about a location of the part of the media stream on the storage
medium.

9. (Previously Presented) The method as claimed in claim 8,
further comprising the act of calculating the buffer filling period
depending on information about a position of a disk head of the
device.

10. (Original) A computer program product which program is
operative to cause a processor to perform the method as claimed in
claim 8.

Claim 11 (Canceled)

12. (Previously Presented) The playback device of claim 1, wherein the controller is configured to store file system information stored on the storage medium in a memory of the playback device, the file system information including the information about the location of the part of the media stream on the storage medium.

13. (Previously Presented) The playback device of claim 6, wherein the controller is configured to store file system information stored on the storage medium in a memory of the playback device, the file system information including the information about the location of the part of the media stream on the storage medium and the information about the position of the disk head.

14. (Previously Presented) The playback device of claim 1, wherein the controller is configured to simultaneously playback more than one media stream or to playback a first media stream while recording a second media stream.

15. (Previously Presented) The playback device of claim 14, wherein the controller is configured to use the buffer refilling time to allow the playback device to read or write data from or onto the storage medium when the storage medium is not needed for a playback process.

16. (Previously Presented) The method of claim 8, further comprising the act of storing file system information stored on the storage medium in a memory of the device, the file system information including the information about the location of the part of the media stream on the storage medium.

17. (Previously Presented) The method of claim 9, further comprising the act of storing file system information stored on the storage medium in a memory of the playback device, the file system information including the information about the location of the part of the media stream on the storage medium and the information about the position of the disk head.

18. (Previously Presented) The method of claim 8, further comprising the act of simultaneously playing back more than one

media stream or playing back a first media stream while recording a second media stream.

19. (Previously Presented) The method device of claim 18, further comprising the act of using the buffer refilling time to allow the device to read or write data from or onto the storage medium when the storage medium is not needed for a playback process.

EVIDENCE APPENDIX

None

RELATED PROCEEDINGS APPENDIX

None